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1. A disk apparatus comprising:  
a disk medium capable of recording/playing back data,  
a buffer memory for temporarily storing audiovisual  
data,

buffer memory control means for controlling the  
input/output of said audiovisual data for said buffer memory,

audiovisual frame detection means for detecting  
audiovisual frame boundaries from said audiovisual data and  
outputting a detection signal,

data division management means for dividing said  
audiovisual data depending on said detection signal and forming  
the management information of said divided data, and

writing means for writing said audiovisual data on  
said disk medium in accordance with said management information.

2. A disk apparatus in accordance with claim 1, further  
comprising data addition means for generating record data  
packets by adding predetermined data to said audiovisual data  
in accordance with said management information,

wherein said writing means writes said record data  
packets on said disk medium.

3. A disk apparatus in accordance with claim 2, wherein  
said data addition means comprises input data counter means for  
measuring the amount of audiovisual data input externally, and  
additional data generating means for generating additional data  
in accordance with said measured amount of audiovisual data.

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5. A disk apparatus comprising:

playback data selection means for selecting said  
audiovisual data to be output externally from among said  
audiovisual data recorded on said disk medium,

buffer memory control means for storing said  
audiovisual data read from said disk medium into said buffer  
memory, and

6. A disk apparatus in accordance with claim 5, wherein said stream data generation means generates stream data by combining said audiovisual data in said buffer memory in audiovisual frame units at plural times, and externally outputs

said stream data continuously.

7. A disk apparatus in accordance with claim 5, wherein said playback data selection means selects said audiovisual data to be output externally from among said audiovisual data recorded in said buffer memory, notifies the storage address in said buffer memory corresponding to said selected audiovisual data to said buffer memory control means, and

said buffer memory control means selects said audiovisual data for external output in said buffer memory on the basis of said storage address, outputs said selected audiovisual data.

8. A disk apparatus in accordance with claim 5, wherein said playback data selection means sequentially selects said audiovisual data to be output externally in audiovisual frame units from among said audiovisual data recorded on said disk medium, sorts said plural pieces of selected audiovisual frame data in accordance with the placement sequence on said disk medium corresponding thereto, and notifies to said reading means,

said reading means reads said audiovisual frame data notified by said playback data selection means in said placement sequence on said disk medium, and transfers to said buffer memory control means,

said buffer memory control means stores said audiovisual frame data transferred from said reading means into said buffer memory in the sequence for external output, and

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9. A disk apparatus in accordance with claim 5, wherein said playback data selection means thins out and selects said audiovisual data recorded on said disk medium in audiovisual frame units.

said stream data generation means generates stream data by combining said audiovisual data in said buffer memory in audiovisual frame units at plural times.

a disk medium capable of recording/playing back data,  
record/playback means for recording/playing back  
data on said disk medium,

buffer memory control means for controlling the input/output of said audiovisual data to said buffer memory.

reading means for reading said audiovisual data

transmitted/received data amount calculation means  
for calculating the amount of data input/output to said buffer  
memory control means on the basis of the amount of audiovisual

14. A disk apparatus in accordance with claim 12,  
further comprising:

15. A disk apparatus in accordance with claim 12, further comprising frame address management means for storing address values in said buffer memory corresponding to said audiovisual data at said audiovisual boundaries, and access address control means for controlling the access addresses of said buffer memory control means in accordance with the addresses of said frame address management means.

data output timing control means for controlling the output timing of said audiovisual data in synchronization with the timing of detecting audiovisual frames by said audiovisual frame detection means.

a disk medium capable of recording/playing back data,  
record/playback means for recording/playing back  
data on said disk medium, and

recording area management means for managing and updating the recording area information of recorded audiovisual

data,

wherein said record/playback means carries out data record/playback in the sequence of the addresses on said disk medium, and

said recording area management means manages and updates the record start address information of the head audiovisual frame data of said recorded audiovisual data, the record start address information of the end audiovisual frame data of said recorded audiovisual data and the head address information of the unrecorded area on said disk medium, and carries out writing in predetermined areas on said disk medium.

18. A disk apparatus in accordance with claim 17, wherein said recording area management means updates the record start address information of the end audiovisual frame data of said recorded audiovisual data and the head address information of the unrecorded area on said disk medium, when the record stop or record standby processing of said audiovisual data is carried out.

19. A disk apparatus in accordance with claim 17, wherein said recording area management means sets the record start address of the head audiovisual frame data of said recorded audiovisual data at the record start address of the end audiovisual frame data of said recorded audiovisual data and the head address of the unrecorded area on said disk medium in response to a request for erasing said recorded audiovisual data from an external apparatus.

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the record start address of the end audiovisual frame data of said recorded audiovisual data is compared with the record start address of said pre-erasure end audiovisual frame data in response to the request for erasing said recorded audiovisual data from an external apparatus, in the case that the record start address of the end audiovisual frame data of said recorded audiovisual data is farther than the record start address of said pre-erasure end audiovisual frame data from the end of the recording area, the record start address of the end audiovisual frame data of said recorded audiovisual data and the head address of the unrecorded area on said disk medium are aligned with the record start address of said pre-erasure end audiovisual frame data and the head address of said pre-erasure unrecorded area on said disk medium.

21. A disk apparatus in accordance with claim 17, further comprising an address management means for managing the head address of the audiovisual frame data being recorded or

information detection means for detecting

in the case that predetermined information is detected by said information detection means, mark information management means for managing and updating at least the record start address information corresponding to the audiovisual frame data from which said predetermined information is detected and the time code information or the absolute track number information included in said audiovisual frame data.

27. A disk apparatus in accordance with claim 26, further comprising mark information notification means for notifying a series of mark information managed by said disk apparatus to an external apparatus.

28. A disk apparatus in accordance with claim 17,  
further comprising:

mark command receiving means for receiving a mark  
addition request from an external apparatus, and

mark information management means, in response to a mark addition request from said external apparatus, for managing and updating at least the record start address information corresponding to the audiovisual frame data being recorded or played back at the time of the generation of said mark addition request and the time code information or the absolute track number information included in said audiovisual frame data.

29. A disk apparatus in accordance with claim 28,  
further comprising mark information notification means for

external audiovisual apparatus interface means for controlling record/playback of said audiovisual data for an audiovisual apparatus,

external disk interface means for controlling  
record/playback of audiovisual data for a disk apparatus,

wherein said playback data selection means selects said audiovisual data thinned out from said audiovisual data recorded on said disk medium in audiovisual frame units as data

to be output externally, and

said stream data generation means generates stream data by combining said audiovisual data in said buffer memory in audiovisual frame units at plural times.

36. An audiovisual data processing apparatus comprising:

external disk interface means for controlling record/playback of audiovisual data for an external disk apparatus,

external audiovisual apparatus interface means for controlling record/playback of said audiovisual data for an external audiovisual apparatus,

a buffer memory for temporarily storing said audiovisual data, disposed between said external disk interface means and said external audiovisual apparatus interface means,

buffer memory control means for controlling the input/output of said audiovisual data for said buffer memory,

playback data selection means for selecting said audiovisual data to be transmitted to said external audiovisual apparatus interface means from among said audiovisual data recorded in said disk apparatus,

reading means for reading said audiovisual data selected by said playback data selection means from said disk apparatus to said buffer memory via said external disk interface means,

data extraction means for extracting said audiovisual

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stream data generation means for combining and externally outputting said audiovisual data extracted by said data extraction means.

external disk interface means for controlling  
record/playback of audiovisual data for an external disk  
apparatus,

a buffer memory for temporarily storing said  
audiovisual data, disposed between said external disk interface  
means and said external audiovisual apparatus interface means,

audiovisual frame detection means for detecting audiovisual frame boundaries from said audiovisual data and for outputting a detection signal.

transmitted/received data amount calculation means  
for calculating the amount of data input/output to said buffer

external disk interface means for controlling

record/playback of audiovisual data for an external disk apparatus,

external audiovisual apparatus interface means for controlling record/playback of said audiovisual data for an external audiovisual apparatus, and

recording area management means for managing and updating, as the area information of the recorded audiovisual data recorded in said disk apparatus, the record start address information of the head audiovisual frame data of said recorded audiovisual data, the record start address information of the end audiovisual frame data of said recorded audiovisual data and the head address information of the unrecorded area in said disk apparatus, and for carrying out writing in predetermined areas in said disk apparatus.

43. An audiovisual data processing apparatus in accordance with claim 42, further comprising:

an address management means for managing the head address of the audiovisual frame data being recorded or played back or the head address of the audiovisual frame data to be recorded or played back next by said disk apparatus,

wherein said external disk interface means controls record/playback of audiovisual data in accordance with the sequence of the addresses in said disk apparatus.

44. An audiovisual data processing apparatus in accordance with claim 42, further comprising:

information detection means for detecting

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mark information management means for managing and updating at least the record start address information in said disk apparatus corresponding to the audiovisual frame data being recorded or played back in said disk apparatus at the time of the generation of said mark addition request and the time code information or the absolute track number information included in said audiovisual frame data in response to said mark addition request from said external apparatus,

wherein said external disk interface means controls record/playback of audiovisual data in accordance with the sequence of the addresses in said disk apparatus.

46. An audiovisual data processing apparatus in accordance with claim 42, further comprising:

mark information receiving means for receiving mark information notified from an external apparatus, and

mark information management means for detecting the audiovisual frame data corresponding to the time code information or absolute track number information included in said mark information notified from said external apparatus at the time of recording audiovisual data in said disk apparatus, and for managing and updating the record start address information in said disk apparatus corresponding to said detected audiovisual frame data and the time code information or the absolute track number information included in said detected audiovisual frame data,

wherein said external disk interface means controls record/playback of audiovisual data in accordance with the sequence of the addresses in said disk apparatus.

47. An audiovisual control method comprising:

a step of temporarily storing audiovisual data in a buffer memory,

a step of detecting the audiovisual frame boundaries of said audiovisual data,

a step of dividing said audiovisual data in accordance

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51. An audiovisual control method comprising:

recording area management step of managing and updating, as the area information of the recorded audiovisual data recorded in said disk apparatus, the record start address information of the head audiovisual frame data of said recorded audiovisual data, the record start address information of the end audiovisual frame data of said recorded audiovisual data and the head address information of the unrecorded area in said disk apparatus, and for carrying out writing in predetermined areas in said disk apparatus.

53. An audiovisual control method in accordance with claim 52, further comprising an address management step of managing the head address of said audiovisual frame data being recorded or played back on said disk medium or the head address of the audiovisual frame data to be recorded or played back next on said disk medium,

wherein record/playback is carried out in accordance with the sequence of the addresses on said disk medium at said record/playback processing step.

54. An audiovisual control method in accordance with claim 53, further comprising a playback control step of carrying out playback control of said audiovisual data on the basis of said area information or said head address information.

55. An audiovisual control method in accordance with claim 53, further comprising a record control step of carrying out record control of said audiovisual data on the basis of said area information or said head address information.

56. An audiovisual control method in accordance with claim 53, further comprising a search step of searching for audiovisual data recorded on said disk medium on the basis of an absolute track number or time code in response to a search request from an external apparatus.

57. An audiovisual control method in accordance with claim 52, further comprising  
an information detection step of detecting discontinuous points at least in date/time data, time codes or

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wherein record/playback is carried out in accordance with the sequence of the addresses on said disk medium at said

record/playback processing step.

59. An audiovisual control method in accordance with claim 52, further comprising:

a mark information receiving step of receiving mark information notified from an external apparatus, and

a mark information management step of detecting the audiovisual frame data corresponding to the time code information or absolute track number information included in said mark information notified from said external apparatus at the time of recording audiovisual data, and of managing and updating the record start address information on said disk medium corresponding to said detected audiovisual frame data and the time code information or the absolute track number information included in said detected audiovisual frame data,

wherein record/playback is carried out in accordance with the sequence of the addresses on said disk medium at said record/playback processing step.

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